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Re-Animating Space

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Abstract Animation has the capacity to re-invigorate how we think about cinematic space. Cinematic space is able to represent and be expressive, and its place in generating narrative meaning is taken to be central to cinema. This, however, overlooks another aspect of space, one associated with intensive spatial experience and other kinds of transformation. As it is rare for live-action images to show space in the process of change, this aspect is not often addressed in the cinema. By contrast, in many animations, space is caught in the act of changing, making it especially relevant to thinking about experiences of spatial transformation. The emphasis in this article is on exploring animation as a revitalization of cinematic space. By paying close attention to both the form and content of *Duck Amuck* (Chuck Jones, 1953), *The Street* (Caroline Leaf, 1976), *The Metamorphosis of Mr Samsa* (Caroline Leaf, 1977), *Flatworld* (Daniel Greaves, 1997) and *Nocturna Artificialia* (Brothers Quay, 1979) the author shows how animation re-animates space. To generate this position she formulates a view of space as undergoing processes of reverberation: existing beyond the location of events, fluid and marked by heterogeneity, shifting between familiarity and uncertainty, and finally, as chaotic and potentially unknowable.

Keywords space, reverberation, intensive experience, transformation, in-between

Space that has been seized upon by the imagination cannot remain indifferent space subject to the measures of the surveyor. (Gaston Bachelard, 1994: xxxvi)

Animation has the capacity to re-invigorate how we think about cinematic space. As a technology, cinema seizes space and through the imaginative acts of filmmakers, creates places for a viewer's engagement. Cinematic space is able to represent and be expressive, and its place in generating narrative meaning is taken to be, and indeed is, central to cinema.¹ This view, however, often overlooks another aspect of space, one associated with an expression of intensive spatial experience and other kinds of transformation. We live through and in space, generating intensive experiences through memories and acts of imagination, or transforming through actual activities. This transformative aspect is rarely addressed, perhaps because, even as cinema creates all kinds of engagements with characters, times and spaces, live-action images only infrequently show space itself in the process of change, and so less commonly evoke a more direct experience of that process.² By contrast, in many animations space is caught in the act of changing, making it a form of cinema especially relevant to thinking about experiences of spatial transformation.

Such a means of conceptualizing space lies outside more usual conventions of thinking about spatial organizations within cinematic discourse. The latter have tended to consider space in its role of supporting character and narrative, whereas I approach space as an entity in itself. When considering onscreen space, the twin concerns of representing and expressing are central to many discussions. Writing of space as representing and expressing, Richard Maltby (2003) makes clear the ways cinematic space both represent places, the locations of narrative and character action, and express aspects of the narrative, as often described in *mise-en-scène* analyses. Even as this way of thinking seems to privilege space, in effect it instead foregrounds the way in which space serves to support the actions of characters as the main vehicle of the narrative, providing either location or expressive resonance. Film theorists have also articulated the relationship between space and narrative or character. Stephen Heath (1981), for instance, in his influential work on narrative space in Hollywood, used the concept of suture to describe how the flow of images and their central perspective ensured a coherent encounter with the narrative. Gilles Deleuze (1983) has defined two kinds of cinematic images, the movement-image and time-image, each defined by the ability of characters to move or act in given spaces. In the movement-image, space is the background for the movement and action of characters, and gains meaning in its role of supporting characters, a convention typified for Deleuze by Hollywood cinema. As a counterpoint to the movement-image, in the time-image characters are unable to react directly, so a plot-driven imperative of

'what happens next' is less dominant. In the absence of action linking the images, their durational quality gives access to a direct image of time. Though very distinct, both the movement-image and time-image treat space indirectly; the important feature of an image is whether or not a character can act, and in doing so, give meaning to space.

None of these articulations, however, approach space when it exists on the screen as an event in itself, where the actions of characters are set aside, rather than the other way around. Space in this sense escapes the meaning given through character action, allowing for a more direct encounter by a viewer. In emphasizing these encounters, I explore an underdeveloped aspect of cinema studies – the capacity of cinema to evoke intensive experiences of space, revealing more of the ways in which space can be seized upon by filmmakers and viewers. In this article I focus on animation's transformative revitalization of cinematic space. Though there are many ways one might give an account of this revitalized space, the trajectory I take is led by an interaction of form and content. In their different ways *Duck Amuck* (Chuck Jones, 1953), *The Street* (Caroline Leaf, 1976), *The Metamorphosis of Mr Samsa* (Caroline Leaf, 1977), *Flatworld* (Daniel Greave, 1997) and *Nocturna Artificialia: Those Who Desire Without End* (Brothers Quay, 1979), each involve figures pushing against the boundaries of places or situations in which they find themselves. Especially interesting, in the context of an incipient claustrophobia, is how these animations avoid static constructions of space, re-animating it by drawing attention to spatial transitions and change. To generate this position I formulate a view of space as undergoing processes of reverberation: existing beyond the location of events, fluid and marked by heterogeneity, shifting between familiarity and uncertainty, and finally, as chaotic and potentially unknowable. By paying attention to elements of animated form, I foreground intensive spatial experience and take it to be both a reaction to circumstance, and a means of imaginatively taking hold of space. Central to giving space experiential meaning is animation's ability to transfer such character encounters to viewers, allowing them to also find themselves caught between their expectations and the images that resolve on the screen.

Approaching reverberating space

'Animation intrinsically interrogates the phenomena it represents and offers new and alternative perspectives and knowledge to its audiences' (Wells, 1998: 11) and among the many alternatives offered are perspectives on space. Animations, especially those striving to break conventions, are suggestive of experiences of space not wholly held captive by narrative. They can achieve an evocation of space that

captivates us as it makes meaning, giving locations for movements and gestures, but which also allows the surprise of space emerging in a process of change. In Caroline Leaf's *The Metamorphosis of Mr Samsa* (1977), a version of Franz Kafka's *Metamorphosis*, the story of Gregor Samsa's transformation is created through the technique of sand on glass, a process giving the images an extraordinary fluidity. Waking up, Gregor falls off the bed onto his domed beetle-like back, and rocks from side to side to right himself. Each time he rocks, his multiple insect limbs flap with the motion. As he finally rights himself his limbs follow through in a turbulent circular motion, which resolves into the hand of another inhabitant of the house laying the table for breakfast. This moment of transition, impossible to anticipate from any cues, generates both the disorientating experience of a man who awakens to find himself a bug, and also places the viewer in a more uncertain relationship to space. Though the narrative quickly takes hold again, the encounter with uncued space discloses a site of meaningful engagement for a viewer.

In *The Poetics of Space*, Gaston Bachelard draws on Eugène Minkowski's idea of reverberation to reveal the meaningfulness of space. Minkowski writes:

If, having fixed the original form in our mind's eye, we ask ourselves how that form comes alive and fills with life, we discover a new dynamic and vital category, a new property of the universe: reverberation. (quoted in Bachelard, 1994: xvi)

The concept of reverberation enables a shift from the conventional view of space as a place where actions occur, to seeing space as something that visibly re-forms. There are different ways animation can generate unexpected progressions, allowing space to be more directly 'seized upon by the imagination': a wall may appear in mid air, a figure may become rounded, flattened, dimensionally in-between, or interior spaces may exceed the boundaries of their external dimensions. The latter, for instance, occurs in *Pigs in a Polka* (Friz Freleng, 1942). As the Wolf chases the three little Pigs through the upper level of the brick house, the hotel-like interior corridors and lift shaft confound a viewer's expectation based on the lower level of the house: the upper levels are far more expansive than the lower ones, extending beyond the dimensional boundaries established in the earlier sequences of the cartoon. Such play yields reverberating spaces through which a viewer can re-encounter the vitality of space. The joke of *Duck Amuck*, for instance, is Daffy Duck's continuous surprise at ruptures in spatial continuity. The cartoon begins with Daffy costumed as a Musketeer in the foreground of a castle. Intent on demonstrating his skill at sword-play, he does not notice his movement from a castle scene into blankness. Daffy's initial absorption in his actions gives way to uncertainty and inaction once he realizes he has stepped outside of a recognizable space for the place of the narrative. This inability to complete the

situation defined by the visual cue of the musketeer location reveals both the centrality of space in making sense of actions, while also suggesting that unexpected shifts between familiar and unfamiliar space provoke disorientation. Daffy's experience can be extended further to the viewer, whose relationship with space at the same time becomes less certain. Through this lessening certainty in what comes next, reverberating space is present in two ways: in the images of the animation and in the process of viewing, in adjusting to and making connections between the spatial discontinuities.³

Duck Amuck, *Pigs in a Polka*, and other Warner Bros cartoons such as *Dough for the Do-Do* (Friz Freleng [uncredited], 1949) strikingly show space being made by playing on the relationship between character and space, particularly with how unity and coherence are usually central to the spaces in which a character acts. Their combination of figures encountering confounding spaces with self-reflective cartooning invokes a complex spatiality through an emphasis on form and content. To articulate how the breaking of formal spatial conventions reveals reverberating space I find helpful a quotation by Stephen Heath (1981) in which he discusses how space is conventionally 'used up' in the construction of place or narrative setting in live-action cinema:

The vision of the image is its narrative clarity and that clarity hangs on the negation of space for place, the constant realization of centre in function of narrative purpose, narrative movement: 'Negatively, the space is presented so as not to distract attention from the dominant actions: positively, the space is "used up" by the presentation of narratively important settings, character traits . . . or other causal agents' [Bordwell and Thompson, 1976: 42]. Specific spatial cues - importantly, amongst others, those depending on camera movement and editing - will be established and used accordingly, centring the flow of the images, taking place. (p. 39)

The idea of space as 'used-up' is useful here, or rather its opposite is useful; that is, to think about space when it is *not* used-up, when it emerges in an abundance that escapes the setting of place, or the control of character through the manipulation of conventions. This is not to say space is redundant, or in excess, but that it introduces a dimension allowing reverberating space to emerge.

Key to seeing space as 'not used-up', escaping the setting of place is the triadic relationship between character, space and action. As I have already argued earlier, space begins to gain meaning of its own when it no longer solely serves a supporting role by giving meaning to the actions of characters. An essential point of this shift in the balance of the triadic relationship is that conventions of spatial organization are broken. The examples cited earlier, *The Metamorphosis of Mr Samsa*, *Pigs in a Polka*, and *Duck Amuck*, though very different kinds of animation, each include moments where the triadic relationship is shifted to an emphasis on reverberating space rather than supportive

space. *Pigs in a Polka* and *Duck Amuck* are the products of the Warner Bros Studio system whose output has included notable pockets of experimentation, and some of this experimentation is evident in the spatial play of these two animations. Given their place within a studio system it is easy to point to the ways the cartoons break with the conventions of that system. However, this is not the only reason for choosing them as examples for study here, as both importantly include a plot in which figures are enclosed within a space, either in the sense of a location or situation, and this double criterion of formal play and enclosure motivated the choices of the other animations considered. The work of Caroline Leaf and the Quay Brothers, for instance, is more usually associated with less commercial animation, so it is perhaps surprising to find them aligned with Warner Bros cartoons in a way that might suggest their formal strategies are equivalent. The discussion of animations in this essay is primarily informed by the specific question of space and, as with any selective criteria, one set of combinations and permutations both includes and excludes, often crossing the boundaries of other criteria, as indeed mine crosses the lines drawn between commercial and art forms of animation. As a consequence, it is not necessarily useful to try to simplistically assert a straightforwardly comparable breakage of convention between all the animations. If one applies the distinction of commercial versus art animation, then the spatio-temporal organizations of *Duck Amuck* and *Flatworld* sit within a different framework of convention than those of *The Street* or *Nocturna Artificialia*. Nevertheless, all these animations include moments in which reverberating space emerges, when space is not used-up in giving meaning to character action.

Whatever the conventional framework within which any animation sits, the idea of space not used up can be allied with approaches that also complicate the content of space. Doreen Massey's work (1993) provides a constructive way of beginning to excavate these possibilities as she sees space as a fluid entity, in which 'spatiality is always in the process of being made'.⁴ Massey conceives of this process by taking space not simply to be the place of singular events, but an assembly of different habitations creating multifaceted spaces.⁵ Since social and political groupings influence the formation of habitations, when they change so does space, allowing for heterogeneity not only in the sense of a multiplicity of users, but also as a fluid constitution of those users. Through this usage, the concept of space extends beyond the dimensions of a location, to give an account of the interaction of living elements with a dimensional location, one mutually defining both the spaces and the elements within it. Any given space evolves in a complex interplay of location and living elements, a fluid process where space can only be made meaningful by attending to its temporalities.

Reverberating space, then, can be approached through the ideas of fluid and unused space. For example Caroline Leaf, whose work I

discuss more fully later, animates in a variety of ways: sand on glass, oil paint on glass, scratching on film stock. While each of these is a very different technique, they all share the property of fluid spatial construction. Whether created from sand, oil paint or surface scratches, shapes are not only used up in the creation of location, but equally in moving between – images fully metamorphose onscreen as space, objects and figures both emerge and dissolve. Returning to *The Metamorphosis of Mr Samsa* and the sequence discussed earlier of Gregor attempting to right himself, this was created through small changes to an image constructed from sand, in which each change was individually photographed, a process giving the images their marvellous fluidity. The fluidity of form also evokes the complexity of the spatial organization of Gregor's home. When Gregor wakes up, his room is his bedroom but as the animation continues its door becomes a barrier that separates him from the other members of the family. As the technique of the animation metamorphoses so easily between Gregor and his parents on the other side of the door, a paradox emerges. The frequently effortless shifts between the spaces exist in tension with Gregor's entrapment, making his imprisonment appear all the more profound.

While Massey's ideas place an emphasis on the fluidity of space and its complex and multifaceted organization (a view that is undoubtedly pertinent to intensive experiences of space), elements of *The Metamorphosis of Mr Samsa* are also suggestive of a further way of thinking about space: that is, space as both certain and uncertain. Though much of the animation works via cued transitions, there are also moments when the images transform unexpectedly from one space to another, from Gregor's flailing limbs to his mother's hand laying out forks at the breakfast table. Such moments of unexpected transition introduce a quality of uncertainty into the animation. Through its combination of form and content, the animation depicts Gregor's disorientating experience, but these unexpected transitions allow a viewer to also experience moments of uncertainty, of being in-between in an encounter with transforming space. While Massey's view keeps in focus the fluidity of space, individuals can experience space as both static *and* fluid. Space is perceived in terms of stasis when it is certain, when familiarity covers over potential ambiguity. Shifting out of a static engagement with space requires a confrontation with the unfamiliar – returning to a place after the passage of time can destabilize space if actuality and memory no longer coincide. Different experiences of a given spatial organization reconfigure space, forcing the re-discovery that what is mapped out through familiarity is only one dimension of a multiplicity of possibilities. Transformation, then, is not only found in an ongoing intensive experience of space, but in shifting encounters that reveal the multiplicity of meanings from either the perspective of chronology or different points of view.

I now explore these ideas more fully through three distinct animations: *The Street*, *Flatworld* and *Nocturna Artificialia*. Though each is very different in terms of technique, all share an emphasis on space, where the figures are captivated by space and also encounter unexpected aspects of their storyworld. As these encounters are embedded in both the form and content of the imagery, the unexpectedness or uncertainties of the spaces are transposed into a direct experience for a viewer. As such, they evoke intensive spatial experiences contingent on enclosure, which though offering open and closed experiential possibilities, nevertheless keep space itself as an emergent category. *The Street* is approached through Doreen Massey's ideas about the heterogeneous space of social organizations, a position extended to look at how the fluidity of the animation generates a transforming space for the viewer, occasionally invoking uncertain spaces. This emphasis on certain and uncertain space is continued through a discussion of *Flatworld*. As an animation that plays with dimensionality, it is used to expand on the idea that space is not always encountered in a continual process of change, but also as it shifts between familiar and unfamiliar organizations. To finish, *Nocturna Artificialia* is considered as an account of a figure trapped within a space that proves impossible to abstract from obscurity; in an apparent paradox, although the figure is enclosed, the space remains open to imaginative transformations.

Fluid encounters

Caroline Leaf's animations are known for their fluid transitions, referred to as 'sustained metamorphoses'.⁶ The combination of this emphasis on mutability with narratives of confinement in several of her animations (*The Metamorphosis of Mr Samsa*, *The Street* and *Entre Deux Soeurs*, 1990) makes them very open to thinking about questions of space. *The Street*, perhaps Leaf's most celebrated animation, features images created using under-lit ink on glass, with individual frames generated by small changes to the previous one. This technique, combined with the narrative, produces two senses of space. The first is one of enclosure, while the second is one of transformation. The contrast between these creates the particular spatial dynamics of the animation, where being held in abeyance while waiting for a death in the family has to give way in the end to that inevitable change.

The sense of enclosure of *The Street* is immediately established in the opening sequence. Beginning with the credits, the sounds of a street – the voices of adults and sounds of children playing, the noise of traffic – give way to the sounds of breathing just at the moment that figurative images appear on the screen. The voice-over establishes the context: a hot summer, a dying grandmother, a family unable to go

away, held waiting within the space of their home. Being held waiting, trapped within the space of their home, seems to be the essence of the narrative. In this film, the competing sense of transformation emerges through Leaf's use of ink on glass animation, a technique generating spaces and temporalities that combine substantial and insubstantial elements, with change taking precedence. Given often blank or cursory backgrounds, and figures portrayed as sometimes only rudimentary lines rather than being used up in providing locations for action, the changing dimensions take the narrative forward. Despite this quality, the animation is essentially realist rather than abstract (see Figure 1). The human figures, while broadly drawn, always evoke the moment of the story – the emotions of weariness, anger, grief and accommodation. It is this aspect that gives substance to the images of time and space in *The Street*. Yet this substance is tempered by the continual transformations of figures and spaces into different figures and spaces, a current of insubstantiality derived from the different devices Leaf uses to establish transitions between events, spaces and temporal moments. Up to a point, these transitions recall those of live-action films – straightforward cuts, dissolves and fades – and there even seem to be moving camera-like effects, the most noticeable of which is a 360° panorama of the street. The dissolves, however, are different to those found in live-action. Usually a dissolve occurs as one image fades in and another fades out, where both can be discerned briefly competing with each other for a viewer's attention. By contrast in *The Street*, the image literally dissolves and then resolves into another. For instance, the first figurative images of the film emerge as the screen, blank and almost black, resolves into a clasped pair of hands, which in turn dissolve and then resolve into an old woman lying in her bed. In these images the in-between is briefly present onscreen as a hesitation in transformation as one object, seen and comprehended, gives way to another not yet seen and as yet uncomprehended.

Figure 1

Still from *The Street* (1976). The mixture of substantial and insubstantial physicality in the figures of this still captures a quality of the fluidity of the animation. © National Film Board of Canada.



The story of a family waiting for a relative to die narrated through a continual mutability of form creates a complex interplay between substantiality and insubstantiality in content and form, one further complicated as *The Street* establishes the different habitations of the space of the home. Following the ideas of Doreen Massey introduced in the previous section, in *The Street* the space of the home is heterogeneous in that each figure interacts with the same space in different ways – the social relations of space are experienced differently – and these different interactions constitute the complexities of the space. For the young boy, the continued life of the grandmother is something of an inconvenience, but one that gives him some status amongst his friends. Until the grandmother's death he appears eating, sleeping, playing with his friends, or complaining to his parents. For the mother, whose own mother is the ailing woman, it is a time of waiting, marked by filling the day with small activities. This period of waiting filled with action materializes in the sequence that begins with household activities. The visual sequence is structured around a series of transitions across a mixing bowl, combing hair, scrubbing the floors, back to the mixing bowl. Each resolve centres on the repeated motion of an activity, and each gives way to another – the action of the whisk, brush strokes through the hair, the scrubbing of the floor, the wringing of the cloth, and the action of the whisk, again. In addition to the passing temporality established in the echoed repetitive action, the return to the mixing bowl is suggestive of a cycle of repetition of quotidian activities only finally interrupted by the cries of the grandmother. Furthermore, since every image of the different activities almost fills the frame, these actions seem to fill not only the time of day but also the space of the home.

The sequence centred on the mother makes an interesting counterpoint to the one which focuses on the father, whose demeanour is one of resignation and relative inaction. Unlike the succession of action-based resolves around the mother, the figure of the father stands almost static to one side of the frame. The other side of the frame is full of nothing, and is mostly in silence until the sound of piano scales intrudes from the street. The figure of the father re-configures into an inactive watcher, hands in pockets at the window, seen first from behind and then through the window. In each of these poses, all he does is take a sweet from his pocket and place it in his mouth. The father is a figure who seems not so much trapped as unable to act, a man who watches as the world goes by him, repeating his ironic and fatalistic mantra: 'what can I say, I was born lucky . . .?' These members of the family (the sister is only rarely glimpsed within the animation) present three distinct yet linked habitations of a home that is marked by the awaited death. Space takes on different meanings according to different lived temporal dimensions; this is a living and heterogeneous space inhabited from the perspectives of individual figures.

The idea of space transformed by different habitations is useful in thinking about the content of Leaf's animation, but it does not fully address another spatial construction within her work: a tendency for the insubstantial quality of the resolves to disassemble the relationship between time, space and action. This allows transformation to enter more forcefully into the organization of the images as the dissolution of an image results not so much in a hesitation but in a complete jump in time and space, where characters resolve from one to another, or objects turn into other objects. In such moments, space can be said to be in use as opposed to used. There are several examples of these in *The Street*: the transitions from the grandmother to the family at table establishing her separation from the family, the boy's hair translating into the children's bedroom, the dissolve from the mother to the nurse, and the transformation of the family group into the ambulance. Though these sequences have a dynamic quality, they disrupt the rhythm of fluid transitions by introducing an abrupt change in spatio-temporal continuity. In some of these, the abruptness is bridged by the linked actions of characters. The mother resolves into the nurse, or the family meeting to decide the fate of the grandmother resolves into the ambulance that will take her to a home. The presence of linked action re-establishes a coherence in the images, while also making a point about the transformation of caregiving. In others, however, there is no bridging connection or action, leaving a strong sense of uncertainty in the moments before the image revolves into a distinct time and space. Embedded in the form and content of *The Street*, this sense of uncertainty exists both for the characters and viewers. In the brief moments where the interstitial lingers, before possibilities become definitive actions, there is only transformation, moments that capture the open-ended prospects of beginnings.

Dimensional manipulation

In addition to the continuous transformation of intensive experiences of space, as individuals we also experience space as both fluid and static. To use a different terminology, familiarity erases ambiguity or indeterminacy, and it is only when confronted with something unfamiliar that a shift again occurs. A confrontation with the unfamiliar precipitates the (re)discovery that what is mapped out through familiarity is only one dimension of a multiplicity of possibilities. The idea of dimensional multiplicities extends to animations directed by Daniel Greaves. *Flatworld* and *Manipulation* (1991) constantly pick at assumptions about space by playing with the dimensionality of the image. Noting how filmed objects projected in two dimensions retain a sense of their three-dimensional perspective, Rudolph Arnheim (1958) addressed the precarious dimensionality of projected images,

and how a viewer 'sees' the projected image as between two-dimensions and three-dimensions. Although seeing a three-dimensional image projected onto a flat screen, we as viewers also understand images to have depth, even in those works where the illusion of depth is not a particular facet of the work. It is as though we attribute '3-D-ness' to the images, even as we know them to be on a two-dimensional screen, and in doing so create a sense of in-between. Arnheim was talking about live-action cinema but his comments are also relevant to animation. Cel-animations generally, or the ink-on-glass technique demonstrated in *The Street*, are two-dimensional images projected on a two-dimensional surface, but depth is introduced through perspective drawing. And because of this, a viewer of animation is able to attribute a sense of depth to two-dimensional animation. While three dimensions have been evident in animation through stop-motion models, puppets, claymation, and depth-based sets for many years, the growth of three-dimensional computer animation is currently creating an emergent space in the animation market. In the same way as the later feature-length animations, including the *Shrek* and *Toy Story* films, early shorts showcasing three-dimensional animation such as *Luxor Jnr.* (John Lasseter, 1986), *Knick Knack* (John Lasseter, 1989) and *The Invisible Man in Blind Love* (Pascal Vuong, 1991) sought to achieve the same dimensional qualities evident in live-action cinema. Daniel Greaves's animations are an interesting counterpoint to those aiming for a dimensional equivalence with live-action film, as they constantly call attention to the dimensionality of the image. In calling attention to the dimensionality of space, these animations also evoke another kind of intensive experience of space, where we are confronted with a perspective that makes a familiar space more uncertain.

In both *Manipulation* and *Flatworld*, Greaves creates figures that seem flat, but which subsequently take on additional dimensions. In *Manipulation* a drawn character battles with its animator in ways reminiscent of the Fleischer Brothers' *Out of the Inkwell* series, in which Koko attempts to outwit his animator (a difference here is that the *Inkwell* series made a greater use of animation combined with live-action). The figure in *Manipulation* exists only within the world of paper on drawing board, but draws attention to dimensions as its flat pencil outline is stretched, expanded, squashed and generally manipulated by the fingers of the animator. In retaliation, the figure slides between sheets of paper, steps off the page, moves in three-dimensional space and finally apparently becomes three-dimensional itself. As in live-action or three-dimensional computer animation, this third dimension is only ever an illusion created by perspective since the images themselves are always flat projections on a plane surface. But in watching the shifting dimensions of the animated character a spectator is reminded of the state of being in-between (Figure 2). Dimensional space, instead of being in stasis, is in transition; it is as if one were encountering something unexpected in an otherwise familiar territory.

Figure 2

Still from *Manipulation* (1991). The figure exists in an in-between state, as both two-dimensional and three-dimensional. Courtesy of Tandem Films Entertainment: *Manipulation* 1991.



Flatworld extends the play of *Manipulation* into a whole world involving sets and multiple objects. The opening sequence of the animation introduces the key characters: Matt Phlatt, Geoff the Cat and Chips the Fish, who pop up as flat figures. This is followed by an introduction to the planet of Flatworld which looks far from flat, as the dimensions of the space are established through the perspective of the set, and the use of light and shadow and rain effects give perspective even to the surface of the street. Initially, it appears as though the objects of Flatworld are flat, as flat vehicles pass along the streets, and a flat figure sweeps the rubbish. However, as soon as one might have reached this understanding, it is undermined by a flat figure pulling an object with three dimensions. Such shifts continue throughout the animation, and are not cued to help viewers to anticipate the transition: Chips the Fish appears both flat and puffed; Matt can iron part of his leg flat; and a chasing dog's face is unexpectedly flattened at a right angle to his body. The play on dimensionality of the objects and characters is a result of the different techniques of drawing, modelling and use of set (with some computer assistance used in the final images). The animation combines conventional cel-animation with flat cut-outs on a three-dimensional set. The cut-outs have shadows, move into depth and behind objects and buildings, and when turning reveal another aspect to their profiles, all of which build the illusion of substance and material dimensions. At other times they are made to slip through impossibly narrow gaps, remain flat when turning, are given heavily drawn outlines which flatten them out, and crumple up like paper. All these reduce the illusion of substance and materiality, especially when the figures and objects are both flat and round, depending on the moment at which they are seen. Through such constant shifts in the dimensions of the characters, *Flatworld* continually explodes assumptions about the spatial dimensions of its characters and objects – as viewers, it turns out that we can never be certain as to what we will see next (Figure 3). The manipulations of



Figure 3

Still from *Flatworld* (1991). The image as a whole points to its dual dimensionality, with flat cars driven within a three-dimensional world. Further, the police car in the foreground has a depth absent in any of the others, another moment where the animation denies a viewer certainty. Courtesy of Tandem Films Entertainment: *Flatworld* 1991.

dimensionality can be thought of as introducing a degree of relativity since the dimension of the objects varies over time. This resonates with the idea of relativity, which has shifted time and space from being seen as absolute dimensions towards the view that they are relative. That is, the measurements given to time and space vary with the positions from which they are observed. Although *Flatworld* is not a commentary on the debates of 20th-century physics, the premise of relativity seems appropriate to the transforming figures of the animation as they are without absolute dimensions, and have aspects changing in time. This relative relationship does not simply introduce uncertainty into the dimensions of space, but also underlines the linkage between space and time. The shifting dimensionality of the characters and objects of *Flatworld* can be seen as a reverberation, of space re-verbbed by time.

The uncertain expectation a viewer has for what comes next carries over into the characters of *Flatworld*, as the play on the construction of uncertain dimensions expands into a questioning of the spatial dimensions of the whole planet. This uncertainty of substance also operates on key characters – those that have been zapped by the multicoloured aura that escapes the cut cable wires. These characters accidentally fall through puddles from one space into another, and then control access to a myriad of other spaces through the use of a remote control. The introduction of other spaces expands the spatiality of the planet of Flatworld from a singular to a multiple dimension. At first these alternative spaces seem like a means to escape from the chase – the colours of the characters become brighter and vivid, except for the thief who remains in his grayscale. But it also becomes clear that each world has its own set of rules: heterogeneity does not simply reside in the existence of parallel spaces but also in their distinct organizations. As Matt, the thief, the policeman, Geoff, Chips and the police dog channel hop, the different spaces present new domains, though ones ultimately limited by

generic TV conventions. For instance, the events in the Western channel culminate in a Spaghetti-Western style shoot out; Geoff gets bounced on the basketball channel; trapped in a microwave on the cookery show; threatened by a rattlesnake in a romantic desert saga; and so forth. The chaotic yet always structured chase breaks down completely when Chips eats the remote, and the channels and spaces begin to leak into each other, or rather they begin to leak into Flatworld itself. The rules of each world cease to operate as everything begins to emerge within a single space, with elements of warfare, nature programmes, a sports channel all running around in the same space. The laws of Flatworld in the end transcend these intrusions, suggesting perhaps that while there may be a multiplicity of possibilities, there are also rules to be followed.

Lost in space

The idea that space emerges from simultaneous interactions, ones that may be unexpected and chaotic, can flip in turn to a view of space as not easily defined, and which may even remain obscure, without any rules to follow. The work of the Brothers Quay is open to this view as films by these puppet animators frequently feature complex spaces established by strange and opaque relations and interactions. These are often frustrating constructions of space which defy any simple definition as it is impossible to grasp what is occurring at any given moment. The places of these animations have locations and realities that remain ambiguous; series of actions rarely result in any clear outcome as cause and effect is convoluted and frequently deferred. The spaces are also uncertain because of their fluctuating dimensions. This fluctuating dimensionality is especially clear in *The Cabinet of Jan Svankmajer* (1984) during the sequences entitled 'The Child's Divining of the Object' and 'The Migration of Forms', when the child discovers drawers that hold expanding spaces (Figure 4). Pulling open a drawer in this imaginary world reveals drawers inside drawers inside drawers that look into sets of cabinets that open of their accord, and exchange their contents. In *The Cabinet of Jan Svankmajer* there seems to be the suggestion that we should look beyond the obviousness of spaces, and not simply understand them through the measurable set of three dimensions.

The animations of the Brothers Quay, though in detail very distinctive, share a feature with the animations of Caroline Leaf and Daniel Greaves – a sense of space that is both substantial and insubstantial. The minutiae of details – tiny objects, dummies, dust, railings, mechanisms – fill the image, yet the connections between the different elements of the whole do not seem to ever coincide within any given location; instead, each element spirals outwards, seeming to reach beyond the visible boundaries. This combination of substantial and

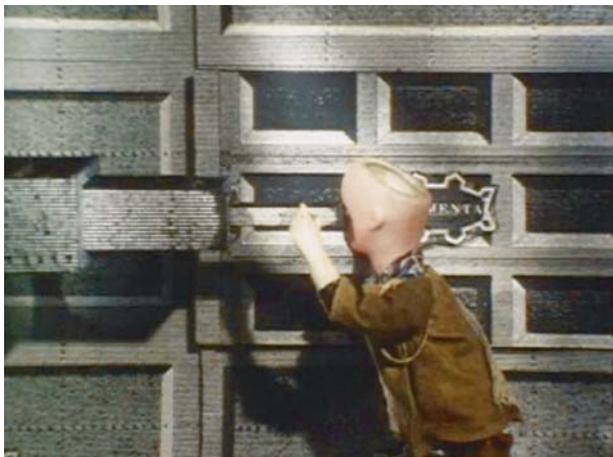


Figure 4

Still from *The Cabinet of Jan* Svankmajer (1984). The boy-like figure opens drawers whose spatial organization expands beyond expected dimensions. Stills courtesy of Koninck.

insubstantial space is evident in *Nocturna Artificialia: Those Who Desire Without End*, one of the first of the Brothers Quay stop-motion animations. The animation has eight sections, each of which is introduced by a cryptic phrase given in four languages: English, French, German and Polish. The action centres on a single room that seems to have no means of escape, though it does have a number of small windows. The room is inhabited by a single trapped puppet figure, but is vibrantly filled with sounds and shadows that keep this closed space from implosion. Throughout, a series of actions defines at least two spaces, the actual space inhabited by the figure and a second space whose status is uncertain – it is either a fantasy or memory, or a combination of the two – but which is constructed around a tram journey. The first space is indicated partly through the décor of fading patterned wallpaper, bits of furniture, and also by the ways in which the figure looks and reaches out of the various apertures of the room. The second space, although apparently separate, in the sense that it can be looked out on, or reached into, is connected to the first by permeable and uncertain boundaries. Given substance in the point of view shots of the figure, the second space is more strongly inferred from shadows and sounds that enter into the enclosed space of the room via the windows and ventilation grilles, and also through objects heard and seen inside the room. The sounds are of a tram passing, creaking wood, metallic clangs, a bell, the twang of cable losing tension and the operation of an electrical engine; the shadows, which at first seem like those of tree branches, are of the cables and passing pantograph, variously still or in motion. The figure, whose movements are captured by stop-motion animation, imagines it is travelling with the tram, at times inside as a passenger and at times as the driver, and finally as the pantograph. The continual shifting between the different spaces, rather than ensuring that they emerge as distinct places,

establishes an insubstantial quality that exists in tension with the more substantial enclosing walls of the room, so much so that the boundaries between appear to dissolve. This dissolution of boundaries is further seen in the transitions effected within a shot. At one moment a movement past foregrounded objects may go screen left within the room (clearly delineated by the wallpaper), in the next the same objects (posts) are still being passed, but the background has changed, to perhaps a tunnel, or maybe the darkness of night.

The extensive shifting and permeability of boundaries in *Nocturna Artificialia* creates a figure that inhabits an indeterminate yet curiously lively space. Even when the illusion of the imagined journey literally crashes down, and the figure falls in its attempt to travel the length of imaginary wires transfigured into a pantograph, the ground of the illusion is retained as it feels the cold metal tracks on the cobbles of its floor. As the animation closes on the figure lying prone, still touching this ground, the actuality of the story-world never becomes apparent (Figure 5). Just as the status of the spaces remains uncertain, so does the uncertainty of what anything might mean. In *Nocturna Artificialia* it seems impossible to be sure of the reality of this peculiar space – does it suggest a captive figure, held by impossible yet irresistible fantasies of movements outside; or does it suggest a prisoner who retains a connection beyond the prison by refusing to stop immersing itself inside its fantasies, even when confronted with its absurdities; or does it suggest something altogether different? Making a choice would seem to be beside the point, as that seems to be about retaining uncertainty. As Michael Atkinson (1994) has commented: ‘Flamboyantly ambiguous, retroactively archaic, obeying only the natural forces of a purely occult consciousness, Quay films are secret, individuated knowledge for each and every viewer’ (p. 36). For viewers, the experience is one of disorientation as they are confronted



Figure 5

Still from *Nocturna Artificialia: Those Who Desire Without End* (1979). The figure falls to the ground, yet the space still carries the uncertain status of the figure's actuality in its shadows, and the visual echoing of earlier imagery. Stills courtesy of Koninck.

with a space that refuses to become familiar, refuses to allow an abstraction from uncertainty to certainty. Unlike the figure held in the thrall of this space, space itself remains beyond capture.

Re-animating space

Animation's mutable form endows it with an ability to generate the 'illusion of life'; in giving movements to inanimate objects and figures, it challenges assumptions about constructions of time and space, as well as movement, in the cinema. My aim in this article has been to extend this challenge to spatiality. Though all kinds of cinema dynamize form, animation has a particular capacity to reconfigure space. Through the technologies of cinema, space is almost always captured and organized in some way, and its ability to establish the setting for action is without doubt in both animated and live-action filmmaking. Animation has a further facility to create a reverberating space that is in itself a meaningful site for a viewer's engagement, where the process of transformation is able to emerge. Being in space, living through experience, carrying out actions, drawing on memories, imagining possibilities, all generate complex reverberations in our relationships with space. In carrying out these activities, space is inhabited in all sorts of ways, not only in terms of a multiplicity of social relations, but also through continually shifting understandings and experiences from which identities, memories and imaginative possibilities emerge. The diversity of techniques collected together under the term 'animation' yields a rich resource for thinking about how cinema can show being in space. Though there are many ways that space can be explored in animation, the examples considered here bring their formal strategies to bear on enclosure, enlivening their narrative's focus on figures experiencing transformations in the spaces they inhabit, whether these spaces open out or remain closed and captivating. The sustained metamorphoses of resolving transitions, the dimensional play, and space which defies abstraction variously reveal the versatility of animation to depict spaces where possibilities have not yet fully subsided.

Space, then, is a complex phenomenon and animations allow its multiple aspects to emerge in a myriad of ways. Doreen Massey (1993) states:

It seems to me important to establish the inherent dynamism of the spatial, at least in the sense that the spatial is not simply opposed to the temporal as its absence, as a lack. The argument thus releases the spatial from the realm of the dead. (p. 4)

While Massey's work addresses spatiality in the actual world, my intention here has been to invoke animation as a cinema allowing a re-encounter with the dynamism of space. Animation shows space in

the process of being made and re-vivifies cinematic experiences of space, dis-locating it from setting and place. As debates in film studies have shown, we are very aware of the temporalities brought into play by moving images, but spatiality remains an under-explored terrain. To rephrase Gaston Bachelard, space seized upon by the imaginative possibilities of animation, and other kinds of filmmaking, ought not to remain an indifferent space.

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Notes

- 1 See, for instance, Gibbs (2002).
- 2 Almost all films use space as locations for imaginative acts, and sets are often beautifully designed and crafted, but the places created do not themselves change. This is less true of digital effects films where it is possible to find crafted sets that transform. For instance, *Dark City* features a set that morphs under the control of an alien species.
- 3 In all the animations discussed in this article, the spatial discontinuities are visual as the soundscapes maintain continuity, primarily through music but also through action-based sounds.
- 4 Massey makes this comment in conversation with Karen Lury (Massey and Lury, 1999: 234).
- 5 Doreen Massey's work belongs in the context of other spatial geographers such as Edward Soja and Henri Lefebvre. See, for instance, Edward Soja (1989) and Henri Lefebvre (1991).
- 6 Paul Wells explores this idea in an interview with Caroline Leaf, published in Wells (2002: 101-11).

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